

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Attorney Docket No. 2011_0332
Masayoshi TAKAHASHI et al.	:	<b>Confirmation No. 9788</b>
Serial No. 10/574,052	:	Group Art Unit 1778
Filed October 13, 2006	:	Examiner Lucas A. Stelling
METHOD FOR COLLAPSING MICROBUBBLES	:	<b>Mail Stop: AMENDMENT</b>

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**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the information listed on attached Form PTO/SB/08.

1a. ☐ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

1b. ☒ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, or

(2) [X] the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and  
the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

- a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement (37 C.F.R. § 1.97(e)(1)), or
- b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement (37 C.F.R. § 1.97(e)(2)).

3. For each non-English language reference listed on the attached Form PTO/SB/08, reference is made to one or more of the following:

- a. ☐ a full or partial English language translation submitted herewith,
- b. ☐ an International Search Report submitted herewith,
- c. ☐ a foreign patent office search report or office action (in the English language) submitted herewith,

- d. ☐ the concise explanation contained in the specification of the present application at page ,
- e. ☐ the concise explanation set forth in the attached English language abstract,
- f. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
4. ☐ A foreign patent office search report citing one or more of the references is enclosed.
5. ☐ Statement Under 37 CFR 1.704(d)
- Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign Patent Office in a counterpart application, and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Masayoshi TAKAHASHI et al.

/David M. Ovedovitz/

By 2011.08.23 12:29:30 -04'00'

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August 23, 2011

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT						
FORM PTO/SB/08 A&B (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>  Date Submitted to PTO: August 23, 2011			<b>ATTY DOCKET NO.</b> 2011_0332  <b>APPLICANT</b> Masayoshi TAKAHASHI et al.  <b>FILING DATE</b> October 13, 2006			<b>SERIAL NO.</b> 10/574,052  <b>GROUP</b> 1778		
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
	AA							
	AB							
	AC							
	AD							
	AE							
	AF							
	AG							
	AH							
	AI							
FOREIGN PATENT DOCUMENTS								
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION			
					YES	NO		
	BA							
	BB							
	BC							
	BD							
	BE							
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)								
CA	Masayoshi Takahashi, "C Potential of Microbubbles in Aqueous Solutions: Electrical Properties of the Gas - Water Interface", National Institute of Advanced Industrial Science and Technology (AIST), J. Phys. Chem. B, Vol. 109, No. 46, October 2005, pages 21858-21864.							
CB	Masayoshi Takahashi et al., "Free-Radical Generation from Collapsing Microbubbles in the Absence of a Dynamic Stimulus", National Institute of Advanced Industrial Science and Technology (AIST), J. Phys. Chem. B, Vol. 111, No. 6, January 2007, pages 1343-1347.							
CC	Masayoshi Takahashi et al., "Formation of Hydroxyl Radicals by Collapsing Ozone Microbubbles under Strongly Acidic Conditions", National Institute of Advanced Industrial Science and Technology (AIST), J. Phys. Chem. B, Vol. 111, No. 39, September 2007, pages 11443-11446.							
CD	Hiroshi Moriawaki et al., "Sonochemical Decomposition of Perfluorooctane Sulfonate and Perfluorooctanoic Acid", Environmental Science and Technology, Vol. 39, No. 9, March 2005, pages 3388-3392.							
EXAMINER			DATE CONSIDERED					

*\*Examiner: initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.*